AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method to facilitate transferring data between a data device and a data terminal across a network, comprising:

receiving at a multiplexer a first request from a controller to transfer data from the data device to the data terminal;

forwarding the first request from the multiplexer to the data device;

accepting a first set of parameters from the data device at the multiplexer, wherein the first set of parameters includes a location of data to be transferred;

sending a remote direct memory access (RDMA) request from the multiplexer to the data device;

in response to the RDMA request, moving data from the data device to the multiplexer; and

inserting data from the data device into an outgoing data stream, so that data does not have to be copied to the controller for insertion into the outgoing data stream.

2. (Original) The method of claim 1, wherein a transmission protocol for the outgoing data stream includes one of transmission control protocol and user datagram protocol.

3. (Original) The method of claim 1, further comprising:

receiving at the multiplexer a second request to transfer data from the data terminal to the data device;

forwarding the second request from the multiplexer to the data device;

accepting a second set of parameters from the data device at the multiplexer, wherein the second set of parameters includes a storage location for transferring data to;

recovering data from an incoming data stream; and

moving data recovered from the incoming data stream to the data device, so that data does not have to be copied to the controller from the incoming data stream.

4. (Original) The method of claim 3, wherein a transmission protocol for the incoming data stream includes one of transmission control protocol and user datagram protocol.

5. (Original) The method of claim 3, wherein the data device includes one of a hard disk, a floppy disk, a tape drive, a compact disk, a digital versatile disk, a digital video disk, a web camera, and a streaming data source.

6. (Original) The method of claim 5, wherein the data device comprises a component associated with a computer kernel process.

7. (Original) The method of claim 5, wherein the data device comprises a component associated with a computer application program.

8. (Original) The method of claim 5, wherein the data device comprises a data source component separate from a computer system.

9. (Currently amended) A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method to facilitate transferring data between a data device and a data terminal across a network, wherein the computer-readable storage medium includes magnetic and optical storage devices, disk drives, magnetic tape, CDs (compact discs), and DVDs (digital versatile discs or digital video discs), the method comprising:

receiving at a multiplexer a first request from a controller to transfer data from the data device to the data terminal;

forwarding the first request from the multiplexer to the data device;

accepting a first set of parameters from the data device at the multiplexer, wherein the first set of parameters includes a location of data to be transferred;

sending a remote direct memory access (RDMA) request from the multiplexer to the data device;

in response to the RDMA request, moving data from the data device to the multiplexer; and

inserting data from the data device into an outgoing data stream, so that data does not have to be copied to the controller for insertion into the outgoing data stream.

10. (Original) The computer-readable storage medium of claim 9, wherein a transmission protocol for the outgoing data stream includes one of transmission control protocol and user datagram protocol.

11. (Original) The computer-readable storage medium of claim 9, the method further comprising:

receiving at the multiplexer a second request to transfer data from the data terminal to the data device;

forwarding the second request from the multiplexer to the data device;

accepting a second set of parameters from the data device at the multiplexer, wherein the second set of parameters includes a storage location for transferring data to;

recovering data from an incoming data stream; and

moving data recovered from the incoming data stream to the data device, so that data does not have to be copied to the controller from the incoming data stream.

12. (Original) The computer-readable storage medium of claim 11, wherein a transmission protocol for the incoming data stream includes one of transmission control protocol and user datagram protocol.

13. (Original) The computer-readable storage medium of claim 11, wherein the data device includes one of a hard disk, a floppy disk, a tape drive, a compact disk, a digital versatile disk, a digital video disk, a web camera, and a streaming data source.

14. (Original) The computer-readable storage medium of claim 13, wherein the data device comprises a component associated with a computer kernel process.

15. (Original) The computer-readable storage medium of claim 13, wherein the data device comprises a component associated with a computer application program.

16. (Original) The computer-readable storage medium of claim 13, wherein the data device comprises a data source component separate from a computer system.

17. (Currently amended) An apparatus to facilitate transferring data between a data device and a data terminal across a network, comprising:

a receiving mechanism that is configured to receive at a multiplexer a first request from a controller to transfer data from the data device to the data terminal;

a forwarding mechanism that is configured to forward the first request from the multiplexer to the data device;

an accepting mechanism that is configured to accept a first set of parameters from the data device at the multiplexer, wherein the first set of parameters includes a location of data to be transferred;

a sending mechanism that is configured to send a remote direct memory access (RDMA) request from the multiplexer to the data device;

a moving mechanism that is configured to move data from the data device to the multiplexer in response to the RDMA request; and

a stream handling mechanism that is configured to insert data from the data device into an outgoing data stream, so that data does not have to be copied to the controller for insertion into the outgoing data stream.

18. (Original) The apparatus of claim 17, wherein a transmission protocol for the outgoing data stream includes one of transmission control protocol and user datagram protocol.

19. (Original) The apparatus of claim 17,

wherein the receiving mechanism is further configured to receive at the multiplexer a second request to transfer data from the data terminal to the data device;

wherein the forwarding mechanism is further configured to forward the second request from the multiplexer to the data device;

wherein the accepting mechanism is further configured to accept a second set of parameters from the data device at the multiplexer, wherein the second set of parameters includes a storage location for transferring data to;

wherein the stream handling mechanism is further configured to recover data from an incoming data stream; and

wherein the moving mechanism is further configured to move data recovered from the incoming data stream to the data device, so that data does not have to be copied to the controller from the incoming data stream.

20. (Original) The apparatus of claim 19, wherein a transmission protocol for the incoming data stream includes one of transmission control protocol and user datagram protocol.

21. (Original) The apparatus of claim 19, wherein the data device includes one of a hard disk, a floppy disk, a tape drive, a compact disk, a digital versatile disk, a digital video disk, a web camera, and a streaming data source.

22. (Original) The apparatus of claim 21, wherein the data device comprises a component associated with a computer kernel process.

23. (Original) The apparatus of claim 21, wherein the data device comprises a component associated with a computer application program.

24. (Original) The apparatus of claim 21, wherein the data device comprises a component associated with a computer application program.

25. (Currently amended) A method to facilitate transferring data between a data device and a data terminal across a network, comprising:

establishing a data session between a controller and the data terminal, wherein the data session is established through a multiplexer;

receiving a first set of data for the data session from the data device in response to a remote direct memory access (RDMA) request from the multiplexer to the data device; and

inserting the first set of data into an outgoing data stream related to the data session, so that the first set of data does not have to be copied to the controller for insertion into the outgoing data stream.

26. (Original) The method of claim 25, further comprising:

retrieving a second set of data from an incoming data stream related to the data session; and sending the second set of data to the data device, so that the second set of data does not have to be copied to the controller before being sent to the data device.

27. (Original) The method of claim 26, wherein a transmission protocol for the data session includes one of transmission control protocol and user datagram protocol.

28. (Original) The method of claim 25, wherein the data device includes one of a hard disk, a floppy disk, a tape drive, a compact disk, a digital versatile disk, a digital video disk, a web camera, and a streaming data source.